AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A polymer composition essentially formed by a polymer based on titanium oxide, which ~~may be~~ is represented by the formula $TiO_x(OH)_y(H_2O)_z$ in which **[[h]]** x+y+z = 3, in the form of a gel or in the form of a sol, wherein:

- the polymer ~~has a structure of one-dimensional (1D) character and it~~ comprises fibers wound concentrically with a periodicity, deduced from the space in between the fibers, of between 3.5 Å and 4 Å;
- each fiber is made up of TiO_6 octahedra;
- each TiO_6 octahedron shares two opposed edges with two adjacent ~~octahedral (2 x 2.92 Å)~~ octahedra in order to form infinite chains that grow along the axis of a fiber; and
- two adjacent chains form double strands by the communing of edges ~~(2 x 3.27 Å)~~.

2. (Currently Amended) The polymer composition as claimed in claim 1, wherein **[[it]]** the polymer composition is translucent and ~~in that it~~ contains the titanium ~~of the polymer~~ in oxidized form Ti^{4+}.

3. (Currently Amended) The polymer composition as claimed in claim 1, wherein **[[it]]** the polymer composition has a violet, blue or green coloration and at least part of the titanium of the polymer is in Ti^{3+} form.

4. (Currently Amended) A method of preparing a polymer composition ~~as claimed in claim 2~~ essentially formed by a polymer based on titanium oxide, which is represented by the formula $TiO_x(OH)_y(H_2O)_z$ in which x+y+z = 3, in the form of a gel or in the form of a sol, wherein: the polymer comprises fibers wound concentrically with a periodicity, deduced from the space in between the fibers, of between 3.5 Å and 4 Å; each fiber is made up of TiO_6 octahedra; each TiO_6 octahedron shares two opposed edges with two adjacent octahedra in order to form infinite chains that grow along the axis of a fiber; and two adjacent chains form double strands by the communing of edges

comprising:

- preparing a ~~$TiOC1_2$~~ $TiOCl_2$ solution in dimethylformamide (DMF) by introducing $TiOCl_2$ dissolved in a concentrated aqueous **[[**HC1**]]** HCl solution into the DMF, in proportions such that the concentration **(C_{Ti})** of Ti atoms is less than 2M,

- heating the solution thus obtained to a temperature between room temperature and 90°C; and

- holding the solution at this temperature for a certain time.

5. (Currently Amended) A method of preparing a composition as claimed in claim 3, comprising:

- preparing a ~~$TiOC1_2$~~ $TiOCl_2$ solution in dimethylformamide (DMF), by introducing $TiOCl_2$ dissolved in a concentrated aqueous **[[**HC1**]]** HCl solution into the DMF, in proportions such that the concentration **(C_{Ti})** of Ti atoms is less than 2M;

- heating the solution thus obtained to a temperature between room temperature and 90°C;

- holding the solution at this temperature for a certain time; and

- subjecting the composition obtained to UV irradiation in an inert atmosphere.

6. (Previously Presented) A method of preparing a composition as claimed in claim 3, comprising reducing $TiOCl_2$ in concentrated hydrochloric acid, using a species that is oxidizable at a potential of less than -0.05 V with respect to a standard hydrogen electrode.

7. (Previously Presented) The method as claimed in claim 6, wherein the oxidizable species is chosen from metals in oxidation state zero, such as Ni, Fe, Al, Cr, Zr, Ti, Nb, Cs, Rb, Na, K, Li, La and Ce, ionic compounds, in which the cation is chosen from V^{2+}, Ti^{2+} and Cr^{2+}, and ionic compounds in which the anion is chosen from $S_2O_3^{2-}$, H^-, and S_2^{2-}.

8. (Previously Presented) The method as claimed in claim 7, wherein the metal is zinc.

9. (Currently Amended) The method as claimed in claim 6, wherein **[[**it**]]** the method furthermore includes a UV irradiation step in an inert atmosphere.

10. (Currently Amended) The method as claimed in claim 6, further comprising preparing a ~~$TiOC1_2$~~ $TiOCl_2$ solution in dimethylformamide (DMF) starting with a ~~$TiOC1_2$~~ $TiOCl_2$ solution in concentrated **[[**HC1**]]** HCl, the concentration (C_{Ti}) of Ti atoms of the solution being less than 2M, in adding the oxidizable species, in heating the solution to a temperature between room temperature and 90°C and in holding the solution at this temperature.

11. (Currently Amended) The method as claimed in claim 6, further comprising introducing the oxidizable species into a ~~$TiOC1_2$~~ $TiOCl_2$ solution in concentrated hydrochloric acid, in which C_{Ti} is less than 2M, and in maintaining the reaction mixture at a temperature between room temperature and 90°C.

12. (Previously Presented) The method as claimed in claim 4, wherein C_{Ti} is less than 1M in order to obtain a composition in sol form.

13. (Previously Presented) The method as claimed in claim 4, wherein C_{Ti} is greater than 1M in order to obtain a composition in gel form.

14. (Currently Amended) A photovoltaic cell comprising a photoanode and a photocathode in an electrolyte, wherein the photoanode comprises a conductive glass plate coated with a layer of a polymer composition as claimed in claim 1 in gel form, containing **[[**the**]]** titanium of the polymer in Ti^{3+} form and the photocathode is a

conductive glass plate coated with a layer of composition as claimed in claim 1 in gel form containing **[[**the**]]** titanium in Ti^{4+} form.

15. (Currently Amended) Solar protection glazing, wherein **[[**it**]]** the solar protection glazing comprises a glass plate covered with a layer of composition ~~according to the invention~~ in the form of a gel.